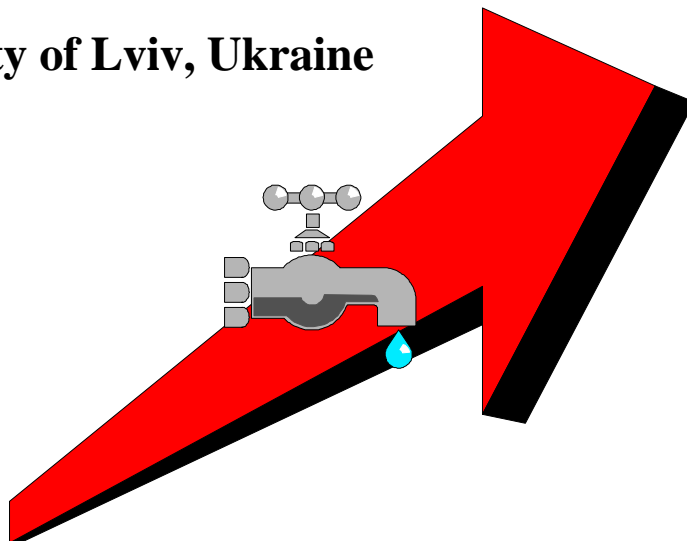


**FINAL**

# **IMPROVING COST RECOVERY FOR WATER PROVISION**

## **VOLUME IV FINAL REPORT**

Prepared for  
**Government of Ukraine**  
and  
**Vodokanal, City of Lviv, Ukraine**



Prepared by  
**PADCO, Inc.**

Contract No. CCS-0008-C-00-2057-00, TO 57  
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## ***PROJECT TEAM***

*This report was prepared by the following persons:*

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<i>Roger Hartman</i>	<i>Water Utilities Financial Specialist</i>
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## ***ACKNOWLEDGMENTS***

*In preparing this report, the team gratefully acknowledges the assistance of the following persons and organizations:*

*Lviv Vodokanal, Director Mykola S. Odukha  
City of Lviv, Mayor Kuybida Vsail  
USAID/PADCO Lviv Resident Advisor, Michael Sinclair*

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# INTRODUCTION

This document is the final report of the project “Improving Cost Recovery for Water Provision,” carried out by Planning and Development Collaborative International (PADCO, Inc.) for the United States Agency for International Development (USAID) and the Government of Ukraine. We completed the assignment under Task Order 57 of the Shelter Sector Reform Program for the Newly Independent States.<sup>1</sup>

From the outset, we were asked to develop recommendations for possible follow-up assistance to other vodokanals (water/wastewater authorities) in Ukraine, based on our initial experience with the Vodokanal in the City of Lviv. Below, therefore, we: (1) report on implementation of the present assignment, and (2) recommend an approach for helping vodokanals in other parts of Ukraine increase cost recovery and otherwise improve water service provision.

## 1 PROJECT IMPLEMENTATION

As discussed below, we were generally successful in performing the assignment. We completed work in a timely manner generally as described in the Terms of Reference (TOR). Between July and October 1995, Consultants Kehew (Team Leader / Institutional Development Specialist) and Hartman (Water Utilities Financial Specialist) each made two trips to Ukraine,<sup>2</sup> and completed work on the project in the U.S. The team:

- submitted all deliverables,
- conducted two workshops with local officials,<sup>3</sup> and
- briefed involved officials.

Below we discuss our success at: (1) completing deliverables, and (2) meeting project objectives.

### 1.1 DELIVERABLES

The team completed four major deliverables as part of the assignment:

- I. *Lviv Vodokanal: Pricing Process* — introduces the model pricing process and compares it to the current tariff-setting method;
- II. *Lviv Vodokanal: Improving Cost Recovery* — analyzes the current financial model for providing water service in Lviv, applies the model price-setting process to the extent currently possible, evaluates performance of the current system for recovering costs, and proposes a strategy for improving cost recovery;
- III. *Manual for Improving Cost Recovery* — provides explanatory text, worksheets, and case studies to help local water officials develop a strategy for improving cost recovery; and

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<sup>1</sup> USAID / PADCO Contract No. CCS-0008-C-00-2057-00.

<sup>2</sup> For trip schedule, see Appendix A.

<sup>3</sup> For discussion of workshops, see Appendix A.

IV. *Final Report* — reviews the success of the present assignment and offers recommendations for future technical assistance.

All documents were prepared in English, with versions of Volumes I and II also translated into Ukrainian. Besides the four volumes, the team also submitted one minor deliverable to USAID, the “Report on Trip to Ukraine 10 July–3 August 1995” (dated 9 August 1995).

## 1.2 OBJECTIVES

Our TOR<sup>4</sup> tasked us with accomplishing three objectives:

1. Helping Lviv Vodokanal develop a strategy for increasing cost recovery;
2. Increasing the capacity of Lviv Vodokanal to (i) analyze the performance of user charges and (ii) set prices; and
3. Developing recommendations and a manual for similarly assisting other vodokanals.

We succeeded in accomplishing the **first objective**, developing a strategy for improving cost recovery. We first formulated a draft strategy in consultation with local officials. Next, we translated, presented, and discussed the draft in detail with participants in a workshop/seminar held on 2 October 1995 (see Appendix for details). Workshop participants included officials from the Vodokanal (six persons), the City (four), and the Oblast (one). The workshop helped to both refine the strategy and encourage local officials to “buy into” the approach. The revised strategy was then submitted as part of our Volume II report.

We largely (but not fully) succeeded in realizing the **second objective** — promoting the sustainability of the effort. Vodokanal staff are now able to (i) analyze user charge performance on an ongoing basis. Vodokanal staff are not yet prepared, however, to (ii) set tariffs according to a model process presented. This was due to a couple of reasons. First, after the initial work trip, we made a professional judgment that Vodokanal staff most needed assistance in adopting a “user pays” mentality and in improving their collections and enforcement system. This involved confronting Soviet-era mind-sets accustomed to central command/control decision-making and heavily subsidized public goods. We therefore focused the remainder of our assignment accordingly. Our proposed strategy places top priority on, and provides the most detail regarding, improved collections. We recommended changing the tariff-setting process at a later phase of strategy implementation.

Second, we found that a capital investment program (CIP) or similar study, a necessary input into the model tariff-setting process, was not yet available for the water sector in Lviv. Notwithstanding this circumstance, the team developed cost and price projections to the full extent possible, including average price estimates under different future scenarios.

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<sup>4</sup> For Terms of Reference, see USAID / PADCO, *Improving Cost Recovery for Water Provision: Volume I: Pricing Process*, Appendix A.

Also regarding project sustainability: we stimulated the Vodokanal to internalize and implement the strategy for improving cost recovery. As discussed above, we tried to encourage local officials to “buy into” the proposed strategy. We also proposed that the Vodokanal form an interdepartmental working group to implement the strategy for improving cost recovery. A Ukrainian member of our assignment team, now a part of the USAID/PADCO/Lviv Resident Advisor's office, will be available to support that effort on an ongoing basis. We also expect that the Resident Advisor will meet presently with the Vodokanal Director to discuss implementation of the strategy. We present other recommendations concerning sustainability in Section 2, below.

We completed the **third objective** (“addressing replicability”). We first circulated preliminary ideas about replicability in the Trip Report completed after our first trip. We submitted our *Manual for Improving Cost Recovery* as our Volume III report. We offer final recommendations regarding replicability below.

## 2 RECOMMENDATIONS

Recommendations address follow-on work in the water sector in Ukraine. As discussed below, this work is contemplated in the USAID/PADCO *Final Work Plan for Fiscal Year 1996: Ukraine Housing Sector Reform Program* (see Appendix B for relevant elements). As per that *Work Plan*, recommendations address: (1) completing work in Lviv, and (2) assisting vodokanals in other parts of Ukraine.

### 2.1 FOLLOW-ON TECHNICAL ASSISTANCE IN LVIV

The USAID/PADCO *Final Work Plan for Fiscal Year 1996* includes as a target the completion of “communal services price reform and reorganization demonstration program in Lviv.” To help reach this target,<sup>5</sup> we propose that USAID/PADCO complete assistance in tariff-setting already begun, after other consultants to Lviv Vodokanal (contracted by USAID and the World Bank) produce: (i) a capital investment program (CIP) or similar study, and (ii) beneficiary assessment, affordability, and willingness-to-pay studies. Over the next several months, two consulting firms are scheduled to perform CIP-related tasks in coordination in Lviv.<sup>6</sup> One of those firms is further programmed to assess beneficiaries and study water affordability and consumer willingness-to-pay.<sup>7</sup>

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<sup>5</sup> The demonstration program in the Lviv Vodokanal includes work by others, including the USAID / PADCO Resident Advisor in Lviv. See TOR (Volume I report, Appendix A).

<sup>6</sup> The TOR for “Studies for the Preparation of a Lviv Water and Wastewater Project,” prepared by the World Bank, call for COWIconsult, a consulting firm, to define “...urgent priority investments to be undertaken under the [World Bank] project” (15 August 1995). And a document describing activities that CH2MHill will complete with USAID funding in Lviv call for that firm to “...collect data...evaluate data...and prioritize the potential activities to upgrade the Lviv system” (3 June 1995). USAID has taken steps to coordinate these activities.

<sup>7</sup> See the above-referenced Terms of Reference for COWIconsult.



Once those analyses are completed, we propose completing our rate study in Lviv, toward the end of FY 1996. We would use the revenue model built and data gathered under the present assignment to recommend new customer classes, and to develop a new rate structure that incorporates block rates to promote water conservation. We would then make current levels of subsidies explicit to decision-makers, and propose a plan for their gradual phase-out. Revealing actual subsidies by comparing current with "economic" prices could affect decision-making at both the local and national levels. We would also help the Vodokanal overcome any problems they have encountered during implementation of their strategy for improving cost recovery.

## 2.2 ASSISTING OTHER VODOKANALS

The USAID/PADCO *Final Work Plan for Fiscal Year 1996* (25 October 1995) sets as a target: "Vodokanals in twelve cities initiate pricing reforms." We offer the following recommendations on how best to meet this target.

1. *Investigate collaborative effort with EBRD.* The most critical question is whether a joint initiative between USAID and the European Bank for Reconstruction and Development (EBRD) is possible or desirable. The EBRD has reportedly entered into discussions with the Government of Ukraine on the possibility of financing water sector improvements in the cities. At least one USAID official and one EBRD official have separately expressed interest in exploring a possible USAID/EBRD collaboration.

2. *Design project accordingly.* Depending on whether such collaboration is possible and/or desirable, USAID-sponsored technical assistance to vodokanals in FY 1996 could take one of two forms discussed below.<sup>8</sup>

### Scenario One: Collaboration with EBRD

Under this scenario, the EBRD and the Government of Ukraine will have reached agreement on financing water sector investments. USAID could then play an important role in funding project preparation work in cities targeted for financing. The benefits of such an arrangement could be significant, by accomplishing the following.

- *Improving water service for more Ukrainians.* With USAID funding project preparation, the EBRD would have more resources freed up to actually provide the loans. This could allow more cities and communities to be targeted. USAID could push for the loans to benefit a greater number of poor households than might otherwise occur.
- *Speeding up investments in water service.* USAID could hasten project preparation, leading to more improvements faster.
- *Developing local institutions and build capacity.* USAID could stress institutional development and capacity-building in project design. Without USAID assistance, these important components might receive little emphasis.

USAID and EBRD would need to agree on a typical scope of work for project preparation in a given location. Project preparation would typically involve three steps: (I) completing pre-

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<sup>8</sup> "Hybrid" combinations between these two basic options are also possible.

feasibility studies (e.g., long-term modeling of water needs), (ii) analyzing project feasibility, and (iii) appraising individual loans. Depending on needs, in addition to those three basic steps other technical assistance might be necessary, including the following:

- *Capital investment planning and programming.* A complete process would first involve preparing long-term development plans for different subsectors (e.g., water treatment, water distribution, wastewater collection, wastewater treatment). One would then move into long- and medium-term investment programs that would combine those subsector plans. One would also analyze the environmental impacts of planned developments. Shorter processes could focus more exclusively on identifying critical investments.
- *Industrial waste minimization.* As a demand management exercise, one would evaluate how best to reduce industrial waste.
- *Legal/institutional analysis.* This involves evaluating alternative concession agreements for private investors, designing management performance contracts, removing legal impediments, etc.
- *Analysis of water tariffs and improving cost recovery.* This involves recommending how best to achieve full cost recovery.
- *Institutional development plan.* Such a study identifies the T&TA needed to assist the agency that will implement the project.

### **Scenario Two: Bilateral Assistance to Vodokanal**

If a loan program from the EBRD does not appear imminent, USAID could still help vodokanal improve their capital and financial planning, and increase cost recovery. The linkages between those areas and improved water service provision are direct and strong. Capital and financial planning help ensure that water systems are maintained and upgraded in a rational manner. And improved cost recovery provides vodokanal with more revenues with which to offer services.

As per the USAID/PADCO *Work Plan*, a technical assistance approach would target officials from 15 cities. The approach would have four phases (see figure on following page), and would be implemented during one fiscal year. First, one would help officials analyze the provision of water services in their communities, and formulate a strategy to improve cost recovery. Our Volume III report is, in fact, a manual designed to support such an introductory seminar.

Next, depending on their needs and strategies, officials would elect to follow between one and five technical “tracks”:

- *Capital and financial planning.* This activity involves planning to meet future service requirements. As a secondary benefit, the process produces data used in setting economic prices (see next “track”).
- *Calculating costs and setting prices for monthly user charges.* TA would help local officials move as close as possible toward prices that reflect full costs of providing service.
- *Improving performance of billing, collection, and enforcement systems.* TA would help local service providers develop stricter enforcement procedures. TA in this area is important to advance the Government's reform policy that consumers should eventually shoulder the costs of water provision.

- *Developing a system of user charges.* While monthly user charges are the most common, other types of charges (e.g., lump-sum development and connection charges) may also play important roles in a financial model for providing sustainable service. T&TA will help service providers develop such systems.
- *Improving the local legal/administrative framework.* The USAID/PADCO Resident Advisor in Lviv is developing replicable materials for improving the legal and institutional framework for service provision.

As shown, within each “track,” local officials would first attend a technical seminar (Phase 2). Then they would carry out an individual work assignment in their home city (Phase 3). During this period, local team members would visit their site and provide hands-on technical assistance. Finally, participants would reconvene for a second technical seminar on the same topic (Phase 4).

# APPENDICES

## APPENDIX A

### SCHEDULE AND WORKSHOPS

This Appendix describes: (1) the assignment schedule, and (2) the workshops/seminars offered.

#### A.1 Overall Schedule

The assignment began on 10 July and ended on 31 October 1995. As per the Terms of Reference (TOR), during that period each of the two ex-patriate consultants completed two trips to Ukraine, according to the following schedule:

Trip/Team Members	Location/Dates (1995)
<b>Trip One</b> - Kehew (Team Leader) - Hartman (Water Utilities Financial Expert)	Lviv, 10 July-1 August; Kiev, 2 August Lviv, 26 July-1 August
<b>Trip Two</b> - Kehew - Hartman	Kiev, 20 September; Lviv, 21 September-8 October; Kiev, 9-10 October Lviv, 21 September-3 October

NOTE: Travel days not shown.

As shown, our work centered in Lviv. Trips to Kiev by the Team Leader permitted discussions with USAID officials, two meetings with officials of the State Committee of Housing and Municipal Economy (SCHME), and sessions with USAID/PADCO Resident Advisors in Kiev.

#### A.2 Workshops/Seminars

We used workshops/seminars as a prime way to present and discuss our findings with local officials and to introduce new concepts. We designed and presented two workshops: one at the end of our first trip, and one during the second trip.

##### A.2.1 First Workshop/Seminar (1 August 1995)

On 1 August 1995, from 2:00 p.m. to 5:00 p.m., we conducted a workshop/seminar entitled "Costs and Prices of Water Provision: Discussion of Preliminary Findings" (see Exhibit A.1 for workshop agenda). Participating in that session were 10 officials from:

- the Vodokanal (three officials),
- the City (three officials),
- USAID/Ukraine (Ms. Janelle Daane),

## **Exhibit A-1**

- the office of USAID/PADCO/Lviv Resident Advisor (two persons), and
- the USAID/CH2MHill Resident Advisor to Lviv Vodokanal.<sup>9</sup>

As shown in Exhibit A.1, we first compared the way tariffs are currently set with a model price-setting process, and then contrasted the way that total costs are computed under the two models in more detail. These issues correspond to our Volume I deliverable. Finally, as an input into later work, we engaged officials in a discussion regarding the objectives of a price structure.

In a debriefing following the event, Janelle Daane of USAID concluded that the workshop was generally a success. It marked the first USAID-sponsored event in which both Vodokanal and City officials in Lviv participated. Relations between the two entities are sometimes strained; promoting positive working relationships was an implicit goal of our work. Officials generally expressed satisfaction with the event. As discussed above, the workshop permitted a deeper understanding of the obstacles preventing full cost recovery, leading us to refocus the rest of the assignment.

### **A.2.2 Second Workshop/Seminar (2 October 1995)**

The project team held its second workshop/seminar, "Improving Cost Recovery," on 2 October 1995 from 10:30 a.m. to 5:00 p.m. in the office of the Vodokanal Director (see Exhibit A.2 for agenda). Eleven officials from the Vodokanal, the City, and the Oblast attended (see Exhibit A.3). We broadened the list of invitees from the first workshop to include officials with more political clout (Kachur), Oblast officials involved with water tariff-setting (Harchenko), and Vodokanal officials involved in billing and collections (Parhomenko). Three persons from the USAID/PADCO office attended, as well as three other USAID contractors, for a total of 17 participants.

As shown in Exhibit A.2, the workshop employed a variety of teaching methods: presentation/discussion, case-study, and exercise. The introduction stressed "thinking outside the box" — creative problem solving.

In the morning session, we led a discussion on the case study, "Collecting Delinquent Payments for Water in Pittsburgh, Pennsylvania, USA."<sup>10</sup> This case study offered a current (1995) example of a water authority that, after years of never shutting off service to delinquent customers, implemented an effective, aggressive campaign to increase payments through service shut-offs. The case embodied two of the messages that undergirded the workshop: (1) water is an economic good ("there is no free lunch"), and (2) leaders can identify problems and develop effective local approaches for solving problems. Most workshop participants had never been taught before using the case-study methodology. Discussion was spirited at the end of the session, when participants were invited to comment on the possible applications of the Pittsburgh experience to Lviv. While most participants were

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<sup>9</sup> See Exhibit A.3 for more details.

<sup>10</sup> See Volume III report for Pittsburgh case study.

## **Exhibit A-2**



## **Exhibit A-3**

eager to point out the obvious differences in circumstances between the cities in Pennsylvania and Lviv, officials did propose ways that service cut-off approach could be applied in Lviv — in effect “thinking outside the box.” Despite differences in situations, officials did seem to find the case of great interest. One official noted that the case “offered a classic approach to problem solving” by a water authority.

Following the above sessions, in the 1:00 p.m. and 1:45 p.m. sessions, the team presented principal findings of the Volume II report that focused on the situation in Lviv. Finally, in the 2:40 p.m. session, the team led a discussion on the draft strategy for improving cost recovery. This document was distributed as a handout. Participants commented vigorously on the feasibility of different strategy elements. Based on their work on the Vodokanal legal framework completed to date under Task Order 53, persons from the office of the USAID/PADCO/Lviv Resident Advisor proved helpful in challenging the assumptions of local officials regarding what they are legally permitted to do. Following the workshop, participant comments were taken into account in preparing the final strategy. This document was submitted as part of the Volume II deliverable.

**APPENDIX B**  
**USAID/PADCO FINAL WORK PLAN FOR FY 96 (excerpt)**